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			ART UNIT 3689	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/820,457	Applicant(s) BORG ET AL.	
	Examiner Tan Dean D. Nguyen	Art Unit 3689	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/13/09 has been entered.

Response to Amendment

2. The amendment filed 4/3/09 has been entered. Claims 1-19 are pending. They comprise:

1) method¹: claims 1-9 (currently amended);

2) system: 10-15 (currently amended); and

3) method²: 16-19 (currently amended).

Method claims 16-19 appear to be broadest claims.

As of 4/3/09, independent claim 16 is as followed:

16. (Currently Amended) A method comprising:

a) compiling printing device data retrieved from component memory of a plurality of replaceable printing components previously installed in printing devices into a customer database, the printing device data comprising one or more of identification information or usage information of the printing devices in which the replaceable printing components were previously installed;

Art Unit: 3689

- b) accessing the compiled printing device data in the customer database; and
- c) assisting a specific customer with resolving a problem with a particular printing device using printing device data within the customer database.

Principles of Law

Note: independent claim 10 is (appears to be) an apparatus claim. In examination of the apparatus claim, the claims must be structurally distinguishable from the prior art. While features of an apparatus claim may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. See (1) MPEP 2114. (2) *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Apparatus claims cover what a device is, not what a device does, i.e. "device which acts or performs ...". (3) *Hewlett-Packard Co. vs. Bausch & Lomb Inc.* (Fed. Circ. 1990). Manner of operating the device or elements of the device, i.e. recitation with respect to the manner in which a claimed apparatus is intended to be employed/used, does not differentiate apparatus from the prior art apparatus. (4) *Ex parte Masham*, 2 USPQ2d 1647 (BPAI, 1987).

Also, this is an apparatus claim and intended use limitation for the system/device or apparatus, i.e. "for managing ..." carries no patentable weight. Manner of operating the device or elements of the device, "that receives...", does not differentiate apparatus from the prior art apparatus.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 10-15 (system) are rejected under 35 U.S.C. 101 because the claimed invention is directed to more than one class of statutory subject matter.

The independent claim 10 begin by discussing a “system” (apparatus), however, the body the claims respectively use language that is used in the claims of a method, i.e. “that receives ..., stores ..., retrieves... and receives...”. A claim of this type is precluded by the express language of 35 USC 101 which is drafted so as to set forth the statutory classes of invention in the alternative only". See Ex parte Lyell (17 USPQ2d 1548).

Similarly, dependent claims 11-15, also contain method steps and are rejected for the same reasons set forth in claim 10 above.

Claim Rejections - 35 USC § 112

5. Claims 1-9, 10-15, 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) In claim 1, there is no functional antecedence for "data retrieved from component memory", "previously installed...", "device used by the customer", etc. In other word, it's unclear whether any functional antecedence exists for the underlined actions above.

Art Unit: 3689

2) Claims 10-15 are vague and indefinite since the claims uses “method steps” such as “that receives ..., stores ..., retrieves... and receives... ”, etc. as indicated above, in an apparatus claims. See *IPXL Holdings. Va. Amazon.com* (Fed. Circuit 2005). System claim that includes a method step is invalid as indefinite because it's not clear the boundary of the claimed scope.

3) In claim 16, the last step is vague because it's not clear how this step is carried out with a new particular printing device by a new specific customer using printing device data within the customer database with a different printing device data and a different customer?

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 3689

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 10-15 (system) are rejected under 35 U.S.C. 103(a) as being unpatentable over HAYWARD et al in view of KLINEFELTER et al alone or further in view of Official Notice, and further in view of YOKOMORI et al.

As for independent system claim 10, HAYWARD et al discloses:

10. (original): A system, comprising:

a center “to receive a used printing device replaceable component from a printing device of a customer, the printing device replaceable component including component memory integrated therewith”;

{see col. 3, lines 65-67, col. 9, lines 5-50}

a customer database that stores customer information for multiple customers, including printing devices and printing device replaceable components used by the customers;

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 24-27, col. 7, lines 60-67, col. 8, lines 5-52}.

a data transfer center wherein printing device data is retrieved the components and stored in the customer database; and

{Figs. 2, 8, col. 3, lines 39-67, col. 4, lines 30-45, col. 9, lines 1-50}

a center configured to receive calls from the customer and provide operator access to the customer database “so that the operator can view the printing device data”.

{see Figs. 2, 8, col. 3, lines 39-67, col. 4, lines 30-45, col. 9, lines 1-50} .

Note: that claims 10-16 is an **apparatus** claim. In examination of the apparatus claim, the claims must be structurally distinguishable from the prior art. While features of an apparatus claim may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. vs. Bausch & Lomb Inc.* (Fed. Cir. 1990). Manner of operating the device or elements of the device, i.e. recitation with respect to the manner in which a claimed apparatus is intended to be employed/used, does not differentiate apparatus from the prior art apparatus. *Ex parte Masham*, 2 USPQ2d 1647 (BPAI, 1987). Therefore, intended use limitation, i.e. “to receive..”, “wherein printing device data is retrieved from...database”, and “so that ...device data”, etc. carries no patentable weight.

Art Unit: 3689

HAYWARD et al fairly teaches the claimed invention except for explicitly (1) calling the 1st center as "recycling center to receive a used printing device replaceable component", (2) calling the last center as "customer service center", and (3) the features in the component of the source of the retrieved data in the data transfer center, i.e. from a component memory of a replaceable component from a printing device.

However, in view of the teachings on Fig. 3, col. 4, lines 40-45, col. 5, lines 30-39, col. 9, lines 45-50, which deals with customer service, on-line help, order supplies, part supplier, etc., it would have been obvious to call the part supplier or manufacturer, or a consumable item vendor as customer service center. Therefore, HAYWARD et al fairly teaches the claimed invention except for explicitly (1) calling the 1st center as "recycling center to receive a used printing device replaceable component", and (2) the features in the component of the source of the retrieved data in the data transfer center, i.e. from a component memory of a replaceable component from a printing device.

The teachings of KLINEFELTER et al is cited above. Therefore, it would have been obvious to a skilled artisan to modify the integrated components in the system of HAYWARD et al to include a memory component for storing data about the replaceable component or the printer as taught by KLINEFELTER et al for diagnostic or reordering the correct supplies. Note that this matches the intended use of the accessed data in step (d) claim 1 above which is "to assist the customer with solving problems related to the printing device (diagnostic)".

Official Notice is taken that it's well known in the art to integrate memory component (or memory tag or ID tag) in a target component (or integrated with the

Art Unit: 3689

target component) to monitor/manage (record/track/interrogate) the operation of the target component (or replaceable) for diagnostic or re-order the proper supplies. This concept is taught in HARDMAN et al {see abstract, Figs. 1A, 12, 15} or BECKER et al {see abstract, Figs. 23, col. 15-16}. Therefore, it would have been obvious to integrate memory component (or memory tag or ID tag) in the replaceable component of HAYWARD et al/KLINEFELTER et al to monitor/manage (record/track/interrogate) the operation of the replaceable consumable component (cartridge) for diagnostic or re-order the proper supplies.

YOKOMORI et al is cited to teach well known elements/functions for recycling of the process printing ink cartridge wherein the used process cartridges are collected and delivered to the collection center and then transported from the collection centers to a cartridge recycling plant (center) whereby the used cartridges are classified or grouped and then go through the processes of dis-assembling, selecting, cleaning, inspection and re-assembling {see cols. 35-36}. Therefore, it would have been obvious to modify the name of the receiving center or plant in HAYWARD et al/KLINEFELTER et al alone or further in view of Official Notice, as cartridge recycling plant (center) whereby the used cartridges are collected and recycled as "recycling plant/center" as taught by YOKOMORI et al for processing used printing cartridges, As shown on col. 35, lines 50-67.

As for dep. claims 11-13 (part of 10), which deal with the type of data, i.e. information about the printing device and its usage, these are taught in HAYWARD et al Figs. 3, 5-6, col. 2, lines 35-50, col. 4, lines 32-67, col. 8, lines 30-45, col. 9, lines 20-

Art Unit: 3689

67. Note also that phrase "information that is stored...component installed" etc, are not a positively recited apparatus structures, but rather is mere intended use of the term "information", thus having no patentable weight in an apparatus claim.

As for dep. claim 14 (part of 10), that phrase "...where used printing device replaceable components are tested ...", is not a positively recited apparatus structures, but rather is mere intended use of the term "center", thus having no patentable weight in an apparatus claim. Also, the term "quality assurance" is mere intended use of the term "center", thus having no patentable weight in an apparatus claim. This is taught in YOKOMORI et al col. 36, lines 5-13, Moreover, it would have been obvious to any center quality assurance its job is to ensure quality of the product or service is up to the standard or specification.

As for dep. claim 15 (part of 10), which deal with the type of information/data, i.e. information about the features of the printing device and cartridge, these are non-essential to the scope of the claimed invention and are taught in HAYWARD et al col. 9, lines 35-42, col. 10, lines 13-18. The use of any similar types of printer or cartridge would have been obvious as mere using any other similar types.

10. Claims 16-19, and 1-8 and are rejected under 35 U.S.C. 103(a) as obvious over HAYWARD et al in view of KLINEFELTER et al alone and/or further in view of Official Notice.

As for independent method claim 16, similarly, in a printing system with operation monitoring system, **HAYWARD et al** discloses the monitoring (communication) steps comprising:

a) compiling data by retrieving data (communicating/**interrogating**) from an integrated components including a replaceable component (cartridge, ink, ribbon) and others (sensor, processor, etc) from a printing device;

{see Fig. 8, elements (8) which includes a sensor (12) and replaceable component (8), (34), (38), (36), (50), col. 9, lines 10-20 “...*may regularly or intermittently interrogate the consumable component for information...*”, lines 43-55, col. 7, lines 3-65, col. 8, lines 5-67}

storing the data in a database;

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-25,

associating the data with a customer;

{see col. 9, lines 24-27, col. 7, lines 60-67, col. 8, lines 5-52}.

(b) accessing the data in the database,

wherein the accessed data is used for interrogation of the condition of the replaceable component (consumable component 11).

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-27, “...*may regularly or intermittently interrogate the consumable component 11 for information ... then process and communicate such information to the server 40...*”, col. 7, lines 60-67, col. 8, lines 5-52}, and

c) assisting a specific customer with resolving a problem with a particular printing device using printing device data within the customer database.

{see Fig. 3, “**Service Name**”, “**On-line Help**”, Fig. 4, “System Setting”, “Maintenance”, cols. 6-7, “*maintenance ...**diagnostic routines**... **diagnostic module**.....*”, Fig. 8, col. 8}

Note: in view of the general teaching of “accessing the manufacturer’s server 40 for information or services”, as cited on col. 6, lines 35-57 and col. 7, lines 60-67, it would have been obvious to include this “accessing the database/server” in col. 7, lines 20-57, in order to obtain/view information (interrogation the condition of replaceable component (consumable component 11) or perform services such as initiating an electronic ordering for a replacement of the consumable component ordering as indicated above.

Therefore, HAYWARD et al fairly teaches the claimed invention except for step (a) wherein the data is retrieved from the memory component of the integrated components and step (c). In other word, the integrated components include a memory component besides the replaceable component and others wherein the data is retrieved from.

KLINEFELTER et al is cited to teach the use of memory component (or tag or ID tag) integrated with a printer replaceable component such as toner cartridge, ink, ribbon, etc. to store information or data about the replaceable component (or related to the printing device such as the cartridge or ink ribbon or the printer) for **diagnostics**

Art Unit: 3689

(solving problems) or for **reordering supplies** {see Figs. 7, ink cartridge or supply 144, memory component 168, tag 142, Fig. 9, RFID Tag memory, col. 4, lines 5-55, "...information from a printer programmed into the ID tag 15 which indicates the type of printer used last.", col. 5, line 50 to col. 6, line 16 "...record information or read information from memory 168....A part number stored in memory 168 can be used for diagnostics and for reordering additional supplies."

Therefore, it would have been obvious to a skilled artisan to modify the integrated components in the system of HAYWARD et al to include a memory component for storing data about the replaceable component or the printer as taught by KLINEFELTER et al for **diagnostic** or **reordering the correct supplies**. Note that this matches the intended use of the accessed data in step (d) claim 1 above which is "assisting the customer with solving problems related to the printing device (diagnostic)".

Official Notice is taken that it's well known in the art to integrate memory component (or memory tag or ID tag) in a target component (or integrated with the target component) to monitor/manage (record/track/interrogate) the operation of the target component (or replaceable) for diagnostic or re-order the proper supplies. This concept is taught in HARDMAN et al {see abstract, Figs. 1A, 12, 15} or BECKER et al {see abstract, Figs. 23, col. 15-16}.

Therefore, it would have been obvious to integrate memory component (or memory tag or ID tag) in the replaceable component of HAYWARD et al/KLINEFELTER

Art Unit: 3689

et al to monitor/manage (record/track/interrogate) the operation of the replaceable consumable component (cartridge) for diagnostic or re-order the proper supplies.

As for dep. claim 17 (part of 16), which deals with well known automatic customer ordering management parameters, i.e. storing customer information for a customer in the database and associating the customer information with the compiled data, this is taught in HAYWARD et al Figs. 5-6, col. 4, lines 47-67 or KLINEFELTER et al col. 6, lines 10-16.

As for dep. claims 18-19 (part of 16 above), which deals with well known automatic customer ordering management parameters, i.e. acquiring the customer information from a source and associating the customer information with general data, these are taught in HAYWARD et al Fig. 5, col. 4, lines 5-10, 47-67, col. 5, lines 1-10, col. 9, lines 20-55 or well known facts as indicated in the specification page 1, lines 15-21 or KLINEFELTER et al col. 6, lines 10-15.

As for independent method claim 1, similarly, in a printing system with operation monitoring system, **HAYWARD et al** discloses the monitoring (communication) steps comprising:

a) retrieving data (communicating/**interrogating**) from an integrated components including a replaceable component (cartridge, ink, ribbon) and others (sensor, processor, etc) from a printing device;

{see Fig. 8, elements (8) which includes a sensor (12) and replaceable component (8), (34), (38), (36), (50), col. 9, lines 10-20 "...*may regularly or intermittently*

Art Unit: 3689

interrogate the consumable component for information..., lines 43-55, col. 7, lines 3-65, col. 8, lines 5-67}

b) storing the data in a database;

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-25,

c) associating the data with a customer; and

{see col. 9, lines 24-27, col. 7, lines 60-67, col. 8, lines 5-52}.

(d) accessing the data in the database,

wherein the accessed data is used for interrogation of the condition of the replaceable component (consumable component 11).

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-27,

“...may regularly or intermittently interrogate the consumable component 11 for information ... then process and communicate such information to the server 40...”, col. 7, lines 60-67, col. 8, lines 5-52}.

Note: in view of the general teaching of “accessing the manufacturer’s server 40 for information or services”, as cited on col. 6, lines 35-57 and col. 7, lines 60-67, it would have been obvious to include this “accessing the database/server” in col. 7, lines 20-57, in order to obtain/view information (interrogation the condition of replaceable component (consumable component 11) or perform services such as initiating an electronic ordering for a replacement of the consumable component ordering as indicated above. Therefore, HAYWARD et al fairly teaches the claimed invention except for step (a) wherein the data is retrieved from the memory component of the

Art Unit: 3689

integrated components. In other word, the integrated components include a memory component besides the replaceable component and others wherein the data is retrieved from.

KLINEFELTER et al is cited to teach the use of memory component (or tag or ID tag) integrated with a printer replaceable component such as toner cartridge, ink, ribbon, etc. to store information or data about the replaceable component (or related to the printing device such as the cartridge or ink ribbon or the printer) for **diagnostics** (solving problems) or for **reordering supplies** {see Figs. 7, ink cartridge or supply 144, memory component 168, tag 142, Fig. 9, RFID Tag memory, col. 4, lines 5-55, "...information from a printer programmed into the ID tag 15 which indicates the type of printer used last.", col. 5, line 50 to col. 6, line 16 "...record information or read information from memory 168....A part number stored in memory 168 can be used for diagnostics and for reordering additional supplies.".

Therefore, it would have been obvious to a skilled artisan to modify the integrated components in the system of HAYWARD et al to include a memory component for storing data about the replaceable component or the printer as taught by KLINEFELTER et al for diagnostic or reordering the correct supplies. Note that this matches the intended use of the accessed data in step (d) claim 1 above which is "to assist the customer with solving problems related to the printing device (diagnostic)".

Official Notice is taken that it's well known in the art to integrate memory component (or memory tag or ID tag) in a target component (or integrated with the target component) to monitor/manage (record/track/interrogate) the operation of the

Art Unit: 3689

target component (or replaceable) for diagnostic or re-order the proper supplies. This concept is taught in HARDMAN et al {see abstract, Figs. 1A, 12, 15} or BECKER et al {see abstract, Figs. 23, col. 15-16}. Therefore, it would have been obvious to integrate memory component (or memory tag or ID tag) in the replaceable component of HAYWARD et al/KLINEFELTER et al to monitor/manage (record/track/interrogate) the operation of the replaceable consumable component (cartridge) for diagnostic or re-order the proper supplies.

As for dep. claims 2-3 (part of 1), which deals with well known information/data parameters, i.e. type of information/data such as about the device and its usage, these are non-essential to the claimed invention and are fairly taught in HAYWARD et al / KLINEFELTER et al as shown in HAYWARD et al Figs. 3, 5-6, col. 2, lines 35-50, col. 4, lines 32-67, col. 8, lines 30-45, col. 9, lines 20-67. Note that the selection of the type of information depends on the desired object/scope/monitoring parameter, etc. and is within the skilled of the artisan..

As for dep. claims 4 (part of 1), which deals with well known information/data parameter, i.e. type of information/data such as previously stored in a database, this is non-essential to the claimed invention and are fairly taught in HAYWARD et al col. 6, lines 35-65, col. 8, lines 35-60, or KLINEFELTER et al col. 4, lines 45-52, Fig. 9.

As for dep. claims 5-6 (part of 1), which deals with well known information/data parameter, i.e. features of the information/data previously stored in a database, these are non-essential to the claimed invention and are fairly taught in HAYWARD et al Figs. 6, 8, col. 2, lines 5-16, col. 8, lines 1-25. Note that in claims 5-6, the phrase "is

Art Unit: 3689

derived from...components or registration card”, is not a positively recited method step, but rather is mere intended use of the term "rules", thus having no patentable weight in a method claim. Moreover, the obtaining customer information from registration card is well known and mentioned in the background of the invention, page 1, middle paragraph. Moreover, these are non-functional language limitation, i.e. “is derived”, and carry no patentable weight.

As for dep. claim 7 (part of 1), which deals with well known device parameter, i.e. type of printer and component, these are non-essential to the claimed invention and are fairly taught in HAYWARD et al in col. 9, lines 35-42, col. 10, lines 13-18 or KLINEFELTER et al col. 1, lines 5-20. The use of any similar types of printer or cartridge would have been obvious as mere using any other similar types.

As for dep. claim 8, this is taught on HAYWARD et al col. 2, lines 40-45. Moreover, this would have been obvious to a skilled artisan as mere applying other well known business parameters or variables since the selection of any well known business rules for compensation of irregular product or service would have been obvious, i.e. free replacement of product or service for malfunction within the 1st year of normally guaranteed performance. Note that no specific rules is cited, but just a rule so this appears to be non-essential since rules are inherently included in every business dealings.

As for dep. claim 9, the phrase “when a defect is found.... The customer database”, is not a positively recited method step, but rather is mere intended use of the term "data" in claim 1, thus having no patentable weight in a method claim.

Art Unit: 3689

Furthermore, this dep. claim does not has any patentable weight since it does not further limit the “retrieving data from a component¹/ item¹ memory (tag memory)” of step (a) or steps (a)-(e)?

11. Dependent claim 9 is also rejected under 35 U.S.C. 103(a) as being unpatentable over HAYWARD et al /KLINEFELTER et al or further in view of Official Notice as applied to claims 1-8 above, and further in view of YOKOMORI et al.

YOKOMORI et al is cited to teach well known elements/functions for recycling of the process printing ink cartridge wherein the used process cartridges are collected and delivered to the collection center and then transported from the collection centers to a cartridge recycling plant (center) whereby the used cartridges are classified or grouped and then go through the processes of dis-assembling, selecting, cleaning, inspection and re-assembling {see cols. 35-36}. Therefore, it would have been obvious to test the used replaceable component for a defect, storing the data and associate the customer for inherently improving recycling product efficiency and customer problems as taught in cols. 1 and 36 of YOKOMORI et al.

12. Claims 16-19, and 1-8 are rejected (2nd time) under 35 U.S.C. 103(a) as obvious over HARDMAN ET AL in view of HAYWARD ET AL or vice versa.

As for independent claim 16, HARDMAN ET AL discloses a method comprising:

a) compiling data retrieved from the component memory of a plurality of replaceable components into a customer database;

{see Figs. 12, 15, 23, 30 and 32, pars. [0253], [0258]

b) accessing the customer database; and

{see Figs. 20, 29, 30, 32, pars. [0258], [0261] }, [0262 “...shows **history data**...”]-[0265]}

c) assisting a specific customer.

{see Figs. 25, 20, especially Fig. 30 “a user can contact ... about **questions** or **problems** right from their user screen...”, and Fig. 32, and pars. [0258] and [0261], [0262 “...**shows history data**...”]-[0265]}

Alternatively, in view of the teachings of [0234] for improving efficiency for servicing, evaluation, early identification of problems to eliminate further damage by using the “Tag System” which monitors and reports problems and events for evaluation, it would have been obvious to use the “Tag System” for assisting a customer to resolve a problem with a particular device using data within the customer database.

Alternatively, the use of the same “Tag System” for monitoring other device/system would have been obvious as mere applying the same data monitoring and processing system above to other device to achieve similar results, see similar application

Art Unit: 3689

teachings on par. [0309]. Note that the claims has no limitation related to “printing devices”.

HARDMAN ET AL fairly teaches the claimed invention except for the type of component and device, a printing component in a printing device.

In a printing system with operation monitoring system, **HAYWARD et al** discloses the monitoring (communication) steps comprising:

a) compiling data by retrieving data (communicating/**interrogating**) from an integrated components including a replaceable component (cartridge, ink, ribbon) and others (sensor, processor, etc) from a printing device;

{see Fig. 8, elements (8) which includes a sensor (12) and replaceable component (8), (34), (38), (36), (50), col. 9, lines 10-20 “...*may regularly or intermittently interrogate the consumable component for information...*”, lines 43-55, col. 7, lines 3-65, col. 8, lines 5-67}

storing the data in a database;

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-25,

associating the data with a customer;

{see col. 9, lines 24-27, col. 7, lines 60-67, col. 8, lines 5-52}.

(b) accessing the data in the database,

wherein the accessed data is used for interrogation of the condition of the replaceable component (consumable component 11).

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-27, “...*may regularly or intermittently interrogate the consumable component 11 for*

Art Unit: 3689

information ... then process and communicate such information to the server 40...", col. 7, lines 60-67, col. 8, lines 5-52}, and

c) assisting a specific customer with resolving a problem with a particular printing device using printing device data within the customer database.

{see Fig. 3, "**Service Name**", "**On-line Help**", Fig. 4, "System Setting", "Maintenance", cols. 6-7, "*maintenance ...**diagnostic routines**... **diagnostic module**.....*", Fig. 8, col. 8}

Note: in view of the general teaching of "accessing the manufacturer's server 40 for information or services", as cited on col. 6, lines 35-57 and col. 7, lines 60-67, it would have been obvious to include this "accessing the database/server" in col. 7, lines 20-57, in order to obtain/view information (interrogation the condition of replaceable component (consumable component 11) or perform services such as initiating an electronic ordering for a replacement of the consumable component ordering as indicated above.

Therefore, it would have been obvious, to person having ordinary skill in the art (PHOSITA), at the time the instant invention was made, to utilize such printing component in printing device, as taught by HAYWARD ET AL, in the system of HARDMAN ET AL, since it has been held to be within the general skill of a PHOSITA to select a known item on the basis of its suitability for the intended use as a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416.

Art Unit: 3689

Alternatively, it would have been obvious, to person having ordinary skill in the art (PHOSITA), at the time the instant invention was made, to utilize step (c), as taught by HARDMAN ET AL, in the system of HAYWARD ET AL, since it has been held to be within the general skill of a PHOSITA to select a known item on the basis of its suitability for the intended use of “diagnostics” and “On-line Help” and “Maintenance”. See *In re Leshin*, 125 USPQ 416.

As for dep. claim 17 (part of 16 above), which deals with well known step of managing customer information/profile parameter, storing customer information in the database, this is taught in HARDMAN ET AL Figs. 29-33, pars. [0261-[0265].

As for dep. claim 18 (part of 16 /17 above), which deals with well known step of managing customer information/profile parameter, acquiring customer information from an item such as registration tool, this is taught in HARDMAN ET AL Figs. 31-33, pars. [0263-0265]. Note that this is mere data processing or communication and the source of the data, such as screen or card, does not carry much patentable weight since they both require the entering of the information into a screen for data processing and this is taught in HARDMAN ET AL. Alternatively, it would have been obvious to acquire customer information from other well known sources such as card. As for the intended use of the card or screen, for registration, this has no patentable weight and furthermore, it's considered as non-functional descriptive material.

As for dep. claim 19 (part of 16 /17 above), which deals with well known step of managing customer information/profile parameter, associating customer information

Art Unit: 3689

with general data related to a device used by a customer, this is taught in Figs. 27-33, pars. [0261-0265].

As for independent method claims 1-6, which have similar scope to claims 16-19 above, they are rejected for the same reason set forth in the rejections of claim 16-19 above.

As for dep. claim 7 (part of 1 above), which deals with the “intended use” of the device or component related to the retrieved data, this is considered as non-functional descriptive material (NFDM) on the data, thus having no patentable weight. The mere insertion of “device” or “component” or “toner cartridge” over “data” does not “impart functionality when employed as a computer component”, thus having no patentable weight.

See MPEP 2106.01 “Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “Nonfunctional descriptive material” includes but is not limited to music, literary works, and a compilation or mere arrangement of data.

As for dep. claim 8 (part of 1 above), which deals with well known step of managing customer information/profile parameter, accessing the data comprising

Art Unit: 3689

defection information in the customer database, note that the term “defection” is considered as NFDM. The mere insertion of “defection” over “data” does not “impart functionality when employed as a computer component”, thus having no patentable weight.

13. Claim 9 is also rejected under 35 U.S.C. 103(a) as being unpatentable over HARDMAN ET AL /HAYWARD as applied to claims 1-8 above, and further in view of YOKOMORI et al.

YOKOMORI et al is cited to teach well known elements/functions for recycling of the process printing ink cartridge wherein the used process cartridges are collected and delivered to the collection center and then transported from the collection centers to a cartridge recycling plant (center) whereby the used cartridges are classified or grouped and then go through the processes of dis-assembling, selecting, cleaning, inspection and re-assembling {see cols. 35-36}. Therefore, it would have been obvious to modify the teachings of HARDMAN ET AL /HAYWARD ET AL to test the used replaceable component for a defect, storing the data and associate the customer for inherently improving recycling product efficiency and customer problems as taught in cols. 1 and 36 of YOKOMORI et al.

Art Unit: 3689

Response to Arguments

14. Applicant's arguments filed 4/3/09 have been fully considered but they are not persuasive in view of the new grounds of rejections which were caused by applicant's amendments of the claims.

No claims are allowed.

Art Unit: 3689

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5. Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday. Should I be unavailable during my normal working hours, my supervisor Janice Mooneyham can be reached at (571) 272-6805. The main FAX phone numbers for formal communications concerning this application are **(571) 273-8300**. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

/Tan Dean D. Nguyen/
Primary Examiner, Art Unit 3689